

REMARKS

Claims 1, 2 and 5-29 are pending and rejected in this application.

Responsive to the Examiner's indication that the Declaration is defective, Applicant has forwarded a new Declaration to the inventors for signature, and will file the same upon receipt.

In response to the Examiner's rejection of claims 1, 2 and 5-29 under 35 U.S.C. § 112, first paragraph, Applicant has amended the specification. Applicant has further described what is shown in Figs. 1-3, describing support points 26 as ring 26 which are clearly shown in Figs. 1-3. Further, Applicant has described ring 26 as being rigid, which is a reflection of the description support point 26 contained in the paragraph starting on page 8, line 7 of the specification. As such, Applicant has added no new matter to the specification, but has merely further described what is present in the figures and disclosure of the application.

Responsive to the Examiner's rejection of claims 10-12 under 35 U.S.C. § 112, second paragraph, Applicant has amended claims 10 and 12, such that claims 10-12 are definite and distinctly claim the subject matter of the invention. Applicant has amended claims 10 and 12 to resolve the issue pointed out by the Examiner in the first paragraph of the fourth page of the Office Action. The Examiner's comments in the last paragraph of the fourth page alleges a contradiction between the language in claim 10 and that of lines 8 and 9 of claim 11. Claim 11 has only 3 lines and does not contain the language cited by the Examiner. As such, Applicant is unable to address this aspect of the Examiner's rejection. Applicant submits that claims 10-12 are now in allowable form.

Responsive to the rejection of claims 1, 2, 5-8, 13, 15 and 17-22 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,974,782 (Nelson), Applicant hereby respectfully

traverses the rejection and submits that claims 1, 2, 5-8, 13, 15 and 17-22 are in condition for allowance.

Nelson discloses a pressure developer and rolls therefor having segments of elastomeric material for control of the modulus of elasticity (Figs. 1-7) including a cylindrical outer shell 30 and a loading shaft 35. A composite material 38 extends between outer shell 30 and loading shaft 35, thereby supporting outer shell 30. Composite material 38 has a compressibility or elastic modulus, which varies along the length of the roll from the axial center of the roll. Compensation for the bending of shaft 35 is achieved by providing a series of individual annular rings or segments formed of the elastomeric material. Compensation for the bending of shaft 35, as shown in Fig. 2, is accomplished by employing rings or segments 50 of identical material and by varying the axial width of individual segments 50. Another embodiment as shown in Fig. 3, includes elastomeric segments 60, which are of identical axial width W, but pitch L or spacing between segments is varied so that segments 60 are closest together near the axial center of the roll and are progressively spaced farther apart from the center. In another embodiment of the invention, as shown in Fig. 4, individual segments 70 of elastomeric material which provide compensation for bending of shaft 35 by having segments 70, which have a decreasing modulus of elasticity with an increasing distance from the center of the shaft. The modulus of elasticity of the center segment 70a has a maximum value as compared to decreasing modulus of each of the additional segments 70 with increasing distance from the center segment 70a (column 3, line 4 through column 4, line 7).

In contrast, claim 1, as previously amended, recites in part:

a base body being substantially cylindrical;
at least one rigid support ring into which said base body is inserted;

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Nelson or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Nelson discloses a pressure developer and rolls therefor having segments of elastomeric material having varying noduluses of elasticity. The Examiner has argued that elements 50, 60a and an element to the right of lead line 70a could be considered a rigid support. However, the disclosure indicates that each of the rings are of elastomeric material as stated in lines 7-9 of column 3. The very nature of elastomeric material is that it is compressible and is therefore not rigid. Therefore, Nelson and any of the other cited references, alone or in combination, fail to disclose, teach or suggest a base body being substantially cylindrical and at least one rigid support ring into which the base body is inserted, as recited in claim 1.

The present invention as set forth in claim 1, has distinct advantages over the cited references in that the base roll is substantially cylindrical and is inserted into a rigid ring that is in contact with an outer cylindrical shell, thereby providing a rigid support point. This advantageously allows for the easy manufacture of the roll by allowing the base body to be inserted in the ring, either prior to or after positioning of the ring in the cylindrical shell. Accordingly, Applicant submits that claim 1, and claims 2, 5-8, 13, 15 and 17-23 depending therefrom, are in condition for allowance, which is hereby respectfully requested.

Claims 9, 14, 16 and 23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nelson. However, claims 9, 14, 16 and 23 depend from claim 1, and claim 1 is in condition for allowance for the reasons given above. Accordingly, Applicant submits that claims 9, 14, 16 and 23 are in condition for allowance, which is hereby respectfully requested.

Responsive to the rejection of claims 10-12 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,750,246 (Pessen) in view of Nelson, Applicant hereby respectfully traverses the Examiner's rejection of claims 10-12, and submits that claims 10-12 are in condition for allowance.

Pessen discloses a composite roll A including a metal core member B and a metal outer cylindrical shell C (Figs. 1 and 2). The inner peripheral surface of shell C is cylindrical so that outer peripheral surface portions 24 and 26 of core member B diverge away from the inner peripheral surface of shell C when proceeding from central portion 22 toward opposite end portions 12 and 14. The annular spaces are filled with elastomeric material D, which is bonded to the inner peripheral surface of shell C and peripheral surfaces 24 and 26 of core member B (column 4, lines 26-58). Although pouring will work, using a vacuum arrangement is the optimum arrangement for completely filling the annular spaces with elastomeric material and insuring the complete and uniform distribution of elastomeric material D throughout the annular spaces (column 6, lines 23-30; column 8, lines 55-66; and column 10, lines 34-40).

In contrast, claim 10, recites in part:

a base body;
at least one rigid support ring into which the base body is inserted.

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Pessen, Nelson or any of the other cited references, alone or in combination and includes distinct advantages thereover.

Pessen discloses a composite roll A including a metal core member B and a metal outer cylindrical shell C. The inner peripheral surface of shell C is cylindrical so that outer peripheral surface portions 24 and 26 of core member B diverge away from the inner peripheral surface of shell C when proceeding from central portion 22 toward opposite end portions 12 and 14. Nelson

discloses a pressure developer and rolls therefor having segments of elastomeric material having varying modulus of elasticity. The Examiner has argued that it would be obvious to separate central portion 22 of Pessen from the rest of the core member and that constructing a formerly integral structure in various elements involves only routine skill in the art. However, if central portion 22 is removed, as a ring, the internal diameter of the ring would be smaller than the external diameter of tapered surface portions 24 and 26, since tapered surface portions 24 and 26 continuously enlarge in diameter until respectively reaching terminations 35 and 36, which has an external diameter the same as the outer surface of central portion 22. As such, either the ring, which the Examiner would remove from Pessen, would not be able to be inserted upon the rest of the core member to arrive at the central position or the removed ring would have no thickness and therefore not exist. Therefore, Pessen, Nelson and any of the other cited references, alone or in combination, fail to disclose, teach or suggest a base body and at least one rigid support ring into which the base body is inserted, as recited in claim 10.

The present invention as set forth in claim 10, has distinct advantages over the cited references in that the base roll is inserted into a rigid ring that is in contact with an outer cylindrical shell, thereby providing a rigid support point. This advantageously allows for easy manufacture of the roll by allowing the base body to be inserted in the ring, either prior to or after positioning of the ring in the cylindrical shell. Accordingly, Applicant submits that claim 10, and claims 11 and 12 depending therefrom, are in condition for allowance, which is hereby respectfully requested.

Claims 24-29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nelson in view of Pessen. However, claims 24-29 depend from claim 1, and claim 1 has been

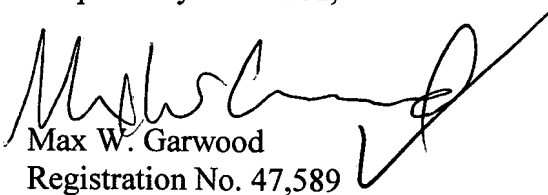
placed in condition for allowance for the reasons given above. Accordingly, Applicant submits that claims 24-29 are in condition for allowance, which is hereby respectfully requested.

For the foregoing reasons, Applicant submits that the pending claims are definite and do particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Moreover, Applicant submits that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicant respectfully requests withdrawal of all rejections and allowance of the claims.

In the event Applicant has overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicant hereby conditionally petitions therefor and authorizes that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,


Max W. Garwood
Registration No. 47,589

TTT6/dc

TAYLOR & AUST, P.C.
142 S. Main Street
P.O. Box 560
Avilla, IN 46710
Telephone: 260-897-3400
Facsimile: 260-897-9300

Enc.: Return postcard

X112

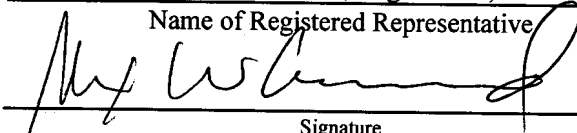
Attorney for Applicant

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450,
on: September 25, 2003.

Max W. Garwood, Reg. No. 47,589

Name of Registered Representative



Signature

September 25, 2003

Date